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7/7/04

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A wafer engine for moving semiconductor workpieces, comprising:
 - a linear drive assembly having a carriage, said linear drive assembly for moving said carriage between a first position and a second position along a first linear path, said first linear path defining an x-axis;
 - ~~a base mounted to said carriage;~~
 - a support column having a first end and a second end;
 - a rotational drive ~~housed within said base~~ mounted to said carriage and affixed to said first end of said ~~having a support column that extends out of said base,~~ said rotational drive adapted to rotate said support column about a longitudinal central axis of said support column, said longitudinal central axis defining a theta axis;
 - a z-axis drive housing having a base portion and an elongated body, said base portion mounted to said second end of said support column such that said rotational drive rotates said z-axis drive housing about said theta axis;
 - a z-axis drive assembly housed substantially within said elongated body, said z-axis drive assembly adapted to move between a first position and a second position along a second linear path, said second linear path defining a z-axis that is offset from said theta axis; and
 - a radial drive housing mounted to said z-axis drive assembly, said radial drive housing enclosing a radial drive assembly adapted to move an end effector between a first position and second position along a third linear path, said third linear path defining a radial axis.
2. (Previously Cancelled)
3. (Currently Amended) The wafer engine as recited in claim 1 2, wherein said rotational drive simultaneously rotates said z-axis drive housing and said radial drive housing about said theta axis.